

Allied Paper/Portage Creek/Kalamazoo River Superfund Site
March 30, 2007

Why are Plainwell wastes being disposed at Allied Paper Landfill? Why not in the 12th Street Landfill near the Plainwell Impoundment? Why not off-site disposal?

- *The PRPs at the mediation table (GP and Millennium) identified the use of Millennium's Allied Paper Landfill for disposal of the Plainwell Impoundment material since the landfill had disposal capacity; and*
- *The mediating parties agreed that on-site disposal at the Allied Paper Landfill would be appropriate because of certain technical aspects of the landfill and because it was cost-effective. Off-site disposal might have been considered if there has been no appropriate on-site option.*
- *The Allied Paper disposal areas have existed for more than 50 years. During the operating years of the papermill, approximately 1 million cubic yards of PCB-contaminated paper residuals were disposed on the facility, creating the Allied Paper Landfill. Approximately 150,000 cubic yards of PCB-contaminated residuals, soil, and sediment were added to the Allied Paper Landfill as a result of EPA's earlier Time Critical Removal Action at Byrant Mill Pond.*
- *The Allied Paper Landfill is one of four paper residual landfills that are a part of the Superfund Site. Each of the landfills at the Kalamazoo River Superfund site contains the same type of material – paper residuals. Final cleanup decisions have already been made for three of the landfills.*
- *Plainwell Impoundment material (PCB-contaminated paper residual, soil, and sediment) is the same type of material already within the Allied Paper Landfill.*
- *The volume of Plainwell Impoundment material (132,000 cubic yards) is approximately 1/10th of the volume of paper residual waste already existing within the Allied Paper Landfill (1 million cubic yards of PCB containing paper residual, soil, and sediment).*
- *PCB concentrations of the Plainwell Impoundment material (highest 220 ppm) are approximately 1/10th of the PCB concentrations (highest 2,500 ppm) already existing within the Allied Paper Landfill.*
- *The Western Disposal Area within the Allied Paper Landfill (which is where the Plainwell Impoundment material will be disposed) is protective because:*
 - *The area where the Plainwell Impoundment material will be disposed is outside the 100 year floodplain*
 - *Plainwell Materials will be placed on top of existing residuals within the Western Disposal Area. Residuals, which are made of very dense clay and*



fiber, are up to 20 feet deep and were originally from the Bryant HRDLs/FRDLs, which were tested and found to range in permeability from 2.94×10^{-7} to 3.82×10^{-8} centimeter per second, which means that water moves very, very slowly through this material.

- Since the time of the test, residuals in the Western Disposal Area are likely to have remained impermeable because the residuals have compacted over time*
- *The 12th Street Landfill is not an implementable option for disposal because:*
 - Based on EPA and MDEQ's experience with a variety of landfills, the agencies believe that it would not be viable to dispose of all of the materials that will be removed from the Plainwell Impoundment at the 12th Street Landfill. The existing height and land area of the 12th Street Landfill, along with the proximity of the existing waste materials to the property line, would preclude proper closure of the 12th Street Landfill.*
 - The time-critical nature of the removal action in the Plainwell Impoundment required the negotiating parties to consider only those disposal options that would not delay the cleanup.*
 - Use of the 12th Street Landfill would have delayed and created uncertainties regarding the cleanup in the Plainwell Impoundment due to:*
 - EPA and Weyerhaeuser reaching a federal judicial settlement for Weyerhaeuser to perform the cleanup selected for the 12th Street Landfill;*
 - the obligation to re-open the remedy and re-negotiate the settlement in order to allow for the disposal of wastes from the Plainwell Impoundment;*
 - the obligation to obtain federal court approval of any significant modification to Weyerhaeuser's responsibilities under the agreement; and*
 - Weyerhaeuser declining to participate in the mediated negotiations.*

Why won't groundwater be affected?

- *Groundwater monitoring has been occurring at the Allied Paper Landfill for a number of years. A key objective of the monitoring program has been to gather information on groundwater flow direction and the quality of the groundwater. There are 103 sample points (which are measured monthly) used for determining groundwater flow directions and 57 monitoring wells for evaluating groundwater quality at the site.*
- *There is no reason to believe there is any threat of contamination to the City of Kalamazoo's drinking water supply wells from the Allied Paper Landfill. Based on all available data, groundwater does not travel toward the City of*

Kalamazoo's drinking water supply wells. Instead, all of the groundwater flow information gathered to date indicates that groundwater underneath the landfill travels toward and discharges to Portage Creek.

- The most comprehensive sampling at the site was conducted in 2002 and 2003. In 2002 samples were collected from 38 monitor wells located near the disposed waste and along flow paths to Portage Creek (known as groundwater surface water interface [GSI] wells). Of the 38 monitor wells, 3 exhibited detections of PCBs above the most restrictive screening criteria (the GSI criteria) of 0.2 ppb. The State's GSI criteria are more stringent than the State's drinking water criteria.*
- In 2003 samples were collected from 37 monitor wells mostly located along flow paths to Portage Creek (GSI wells). Of the 37 monitor wells sampled, none exhibited detection of PCBs above the most restrictive screening criteria of 0.2 ppb.*
- Groundwater samples were also collected from seeps (a feature that exists when groundwater is under enough pressure to rise above the aquifer containing it) along the perimeter of the site near Portage Creek. The presence of the seeps indicates a strong groundwater tendency towards Portage Creek. In 2002, 20 groundwater seeps were sampled. 4 locations exhibited detectable levels of PCB while 2 seeps near the Former Type III landfill exceeded the most restrictive screening criteria of 0.2 ppb criteria. In 2003 a subset of 14 groundwater seeps were sampled. 5 of the locations exhibited detectable levels of PCBs while the groundwater seep located in the same area near the former Type III landfill was the only exceedance of the most restrictive criteria of 0.2 ppb.*
- Although some samples had exceedances of the State of Michigan GSI standards during the fall of 2002, the wells where these exceedances occurred were located either directly in or in close proximity to waste materials. No exceedances have been detected in the wells used for determining compliance with the State of Michigan GSI standards.*
- The majority of the Allied Paper Landfill has a groundwater collection system along Portage Creek in front of a sheet pile wall. Water collected from this system is treated with carbon prior to discharging to the City of Kalamazoo's water treatment plant.*
- EPA is committed to ensuring adequate groundwater monitoring will be conducted at the Allied Paper Landfill long-term to ensure that groundwater conditions do not change.*

Disposal Capacity Remaining at Allied landfill:

- *Total disposal capacity remaining at the Allied Paper Landfill, after the Plainwell Impoundment cleanup, is approximately 220,000 cubic yards within areas referred to as the Type III landfill and Monarch HRDLs.*

Why a Time-Critical Removal Action?

- *New data collected in 2006 confirmed the presence of PCB concentrations > 50 ppm in three localized hot spots in the river sediments.*
- *Maximum PCB concentration detected in 2006 in the river sediment was 220 ppm.*
- *Data also indicated that bank soils and floodplains contained areas with PCB concentrations > 50 ppm.*
- *Significant uncontrolled erosion is occurring at the Plainwell Impoundment which causes undercutting of contaminated banks that then fall into the river. The Plainwell Impoundment is the first, most upstream significant source of PCBs to the Kalamazoo River. It is important to remove this material from the river as soon as possible to eliminate the most upstream source of PCB to the River.*

Why was there no public involvement in TCRA decision?

One of the goals of the mediated negotiations was for U.S. EPA to negotiate an agreement with the PRPs to conduct future investigations on the River. These types of negotiations are called "settlement negotiations." The public does not participate in EPA's settlement negotiations. The decision to conduct a TCRA was made during the settlement negotiations as a result of the data collected in 2006. The public will have an opportunity to comment on the final cleanup action for the Allied Paper Landfill under the Superfund process, as well as cleanup actions for other areas of the River.

Truck Route:

USEPA is sensitive to the traffic concerns expressed by Kalamazoo officials and citizens. The proposed truck route is being altered in consultation with the City of Kalamazoo officials. The final route has not yet been determined.

Why is disposal of the TCRA material in the Allied Paper Landfill considered temporary disposal?

- *Plainwell material is considered "temporary" only in the sense that it is not a final cleanup decision. A cleanup decision for the landfill will be made in a*

Record of Decision after the RI/FS is finalized and after EPA makes the Proposed Plan available for public comment.

- *EPA has allowed the disposal of the Plainwell Impoundment materials at the Allied Paper Landfill because site conditions indicate that disposal will not substantially modify conditions at the site. EPA believes that the materials will be managed safely at the landfill.*
- *In evaluating final cleanup alternatives for the Allied Paper Landfill, it is likely that both EPA and MDEQ will consider an alternative that allows for the Plainwell waste and residuals currently within the landfill to remain in place. Final cleanup decisions have already been made for the other three landfills at the site: King Highway Landfill, 12th Street Landfill and Willow Blvd/A-site Landfill. The final cleanup decisions for all three landfills, which are also located adjacent to the Kalamazoo River and have similar materials as the Allied Paper Landfill, were to contain the materials at the landfills in place. The decision documents along with the Administrative Records for these landfills are publicly available and can be informative on how EPA's remedy selection criteria are evaluated for sites like the Allied Paper Landfill.*